

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A vacuuming motor, for being attached to a peripheral edge of a motor attaching hole of a vacuum chamber and operable to be used as a drive apparatus of a board transporting robot in the vacuum chamber, comprising:

a reduction gear main body attached to an end portion on a load side of a motor main body, including an attaching flange fixed to the motor attaching hole to interpose an O-ring there between; and

vacuum seals fixed to the attaching flange, made of resin, contacting slidably with an output shaft of a reduction gear, for partitioning an inner space of the reduction gear main body and the motor main body and an inner space of the vacuum chamber,

wherein the motor main body and the reduction gear main body are arranged in an atmosphere outside of the vacuum chamber

wherein the vacuum seals further comprise a first vacuum seal and a second vacuum seal,

the first and the second vacuum seals define an inner space for being vacuumed,

the first vacuum seal partitions the inner space of the reduction gear main body and the inner space between the first and the second vacuum seals for being vacuumed, and

the second vacuum seal partitions the inner space between the first and the second vacuum seals for being vacuumed and the inner space of the vacuum chamber.

2. (previously presented): The vacuum motor according to Claim 1, wherein the attaching flange includes:

a seal holding portion fixed with the vacuum seals respectively at vicinities of both end portions thereof in an axial direction, having a middle sucking port for vacuuming air at an interval between the vacuum seals at a central portion thereof, wherein the middle sucking port is operable to be opened in a radial direction of the output shaft and vacuum air in the radial direction; and

a chamber attaching portion having a ring-like shape, attached to the seal holding portion or integrally formed therewith, attached to a peripheral edge of the motor attaching hole of the vacuum chamber.

3. (currently amended): A vacuuming apparatus comprising:

a vacuum chamber having a motor attaching hole therein;

a motor main body, operable to be used as a drive source of a robot in the vacuum chamber;

a reduction gear main body attached between the motor main body and a vacuum chamber, including an attaching flange attached to a peripheral edge of the motor attaching hole of the vacuum chamber via an O-ring,

vacuum seal fixed to an inner surface of the attaching flange on two portions apart in an axial direction of an output shaft of a reduction gear, contacting slidably with the output shaft of the reduction gear,

a middle sucking port for vacuuming air at an interval between the vacuum seals, wherein the middle sucking port is operable to be opened in a radial direction of the output shaft and vacuum air in the radial direction,

wherein the motor main body and the reduction gear main body are arranged in an atmosphere outside of the vacuum chamber

wherein the vacuum seals comprise a first vacuum seal and a second vacuum seal,
the first and the second vacuum seals define an inner space for being vacuumed,
the first vacuum seal partitions the inner space of the reduction gear main body and the
inner space between the first and the second vacuum seals for being vacuumed, and
the second vacuum seal partitions the inner space between the first and the second
vacuum seals for being vacuumed and the inner space of the vacuum chamber.

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